UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/299,596	04/27/1999	TONG HYONG LEE	0630-0913P	3472

			EXAMINER
2292	7590	05/20/2004	KARMIS, STEFANOS

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3624	

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 February 2004*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3-33* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This communication is in response to Applicant's amendment filed on 23 February 2004.

Status of Claims

2.   Claims 1-2 have been cancelled. Claims 3-21, 23-24 and 26-32 have been amended.

Claims 22, 25 and 33 have been left as originally filed. Therefore claims 3-33 are under

prosecution in this application.

Summary of this Office Action

3.   Applicant's arguments filed on 23 February 2004 have been fully considered and are

either discussed in the next section below or within the following office action. Claims 3-33 are

rejected based on the prior art cited below and Applicant's request for allowance is respectfully

denied at this time.

Response to Arguments

4.   Applicant's arguments with respect to claims 3-33 have been considered but are moot in

view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6.   Claims 3-4, 7, 9-14, 16-22 and 26 are rejected under 35 U.S.C. 102(e) as being

anticipated by Takami et al. (hereinafter Takami) U.S. Patent 6,536,661.

Regarding independent claim 3, Takami discloses an apparatus for storing electronic

money comprising: a radio signal receiving block for receiving a radio signal and determining

whether the received signal corresponds to a general information or a balance storing

information, a memory block for storing a storing amount, a content and a certification

information; a computation logic block for comparing a serial number extracted from the

received signal with a previously stored serial number if it is determined that the received signal

corresponds to balance storing information and storing a balance storing data extracted from the

balance storing information into the memory block if the extracted serial number and the

previously stored serial number are determined to be the same and the balance storing

information transmitted from the radio signal receiving block is determined to be a proper signal;

and a non-contact block for storing a balance storing amount into the memory block using a card

storing unit and reading a balance storing amount of the memory block when paying the money

(column 11, line 40 thru column 12 line 58 and Figures 13-15).

Claim 4, the computation logic block is designed so that a certain amount data is stored

into the memory block only when first and second balance storing information are all received

from the radio signal receiving block (column 12, lines 6-58 and Figures 13-15).

Claim 7, the non-contact block includes a modulation and demodulation unit for

performing a signal transmitting and receiving operation with a card storing unit or a card reader;

and a non-contact computation unit for storing a balance storing data into the memory block at

the modulation and demodulation unit in the case of the balance storing operation, reading the

balance storing data stored in the memory block in the case of the payment and transmitting the

read data to the modulation and demodulation (column 11, line 59- column 12, line 5).

Claim 9, the control means is designed to decrypt an output signal of the radio signal

receiving block, extract a certification information if there is a service stop signal, disables the

memory block when the extracted certification information is coincided with the previously

stored certification information, and stop the service of the card (column 11, line 59- column 12,

line 5).

Regarding independent claim 10, Takami discloses a radio signal receiving block for

receiving a radio signal, judging whether the received radio signal corresponds to a general

information or a balance storing information, a memory block for storing a storing amount, a

content, and a certification information; a modulation and demodulation unit for implementing a

signal transmitting and receiving operation with a card storing unit; and a computation logic

block for comparing a serial number extracted from the received signal with a previously stored

serial number if it is determined that the received signal corresponds to balance storing

information and storing the balance storing information into the memory block if the extracted

serial number and the previously stored serial number are determined to be the same and the

various certification information extracted from a balance storing information transmitted from

the radio signal receiving block during the balance storing operation are determined to be proper

information, storing the balance storing data of the modulation and demodulation unit into the

memory block and reading the amount data up to the amount confirmed by the modulation and

demodulation unit during the payment operation from the memory block and paying via the

modulation and demodulation unit (column 11, line 40 thru column 12 line 58 and Figures 13-

15).

Claim 11, the computation logic block is designed to receive first and second balance

storing information from the radio signal receiving block and store the amount data into the

memory block only when the balance storing information is determined to be proper information

(column 12, lines 15-58).

Claims 12 and 13, the process comes to completion when the logic block is designed to

stop the service of the terminal when a proper first balance account information is received from

the radio signal receiving block or when a balance storing cancellation information is received

from the radio signal receiving block during the balance storing operation (column 11, line 40

thru column 12 line 58 and Figures 13-15).

Claim 14, the computation logic block includes a control means for decrypting a balance

storing information based on a radio transmission method, storing the balance storing data into

the memory block if the subscriber is determined to be a proper subscriber, storing the balance

storing data based on a non contact method, reading the amount data up to the amount confirmed

during the payment and transmitting via the non-contact interface unit; a radio interface unit for

implementing a data transmitting and receiving operation with the control means, and a non-

contact interface unit for implementing a signal transmitting and receiving operation between the

modulation and demodulation unit and the control means (column 11, line 59 thru column 12,

line 44).

Regarding independent claim 16, Takami discloses an apparatus for storing electronic

money wherein the apparatus is engages with a portable terminal and an electronic money card

comprising: high frequency processing means for receiving a radio signal and converting the

received radio signal into a digital signal; a modulation and demodulation means for

implementing a signal transmitting and receiving operation with a card storing unit or a card

reader; a memory block for storing a storing amount, a content and a certification information;

and a control means for receiving an output signal from the high frequency processing means,

storing the balance storing data into the memory block when a serial number extracted from the

radio signal and the previously stored serial number are determined to be the same and various

certification information extracted from the amount information are determined to be the same as

previously stored various certification information if the received signal contains balance storing

information, checking the balance storing data inputted from the modulation and demodulation

means, storing the amount into the memory block, reading an amount of money up to an amount

confirmed by the modulation and demodulation during the payment operation and then paying

the money (column 11, line 40 thru column 12 line 58 and Figures 13-15).

Regarding independent claim 17, Takami discloses a method for storing electronic money

using radio communication and a card storing unit comprising: determining whether a received

radio signal corresponds to a balance storing information; extracting various certification

information including amount information and a radio received block serial number if the

received radio signal is determined to correspond to balance storing information, and

determining whether the extracted serial number is the same as a previously stored serial number

and whether a subscriber is a proper subscriber; and storing the amount information extracted

from the balance storing information if the extracted serial number and the previously stored

serial number are determined to be the same and the subscriber is determined to be a proper

subscriber (column 11, line 40 thru column 12 line 58 and Figures 13-15).

Claim 18, determining the balance storing information, the information is determined to

be a balance storing information when there is a certain pattern signal in the received radio signal

(column 11, line 40 thru column 12 line 58 and Figures 13-15).

Claim 19, the step of various certification includes reading a counter value contained in the balance storing information if it is determined that the serial numbers are the same and determining whether the read counter value is the same as a counter value of a function for the previously stored encryption; determining whether the serial key value outputted via the encryption process in which the counter values are the same as the previously stored key value; and determining that a subscriber is a proper subscriber when the key values are the same (column 11, line 40 thru column 12 line 58 and Figures 13-15).

Claim 20, the decryption process of the balance storing information is implemented when the counter value extracted from the balance storing information is the same as the counter value for the previously stored decryption column 11, line 40 thru column 12 line 58 and Figures 13-15.

Claim 21, summing a current balance storing amount and a recent radio balance storing amount to obtain a first summed amount if the subscriber is a proper subscriber and determining whether the first summed amount is below a certain amount; determining whether the first summed amount obtained is equal to the second summed amount contained in the balance storing information based on the radio transmission method if the first summed amount is below the certain amount; storing the balance storing data if the first summed amount is equal to the second summed amount; and determining the signal as a balance storing error if the first summed

amount is greater than a certain amount or the first summed amount is not equal to the second

summed amount.

Claim 22, a step for displaying the current storing amount and the storing amount

contents when the balance storing data is stored (column 11, lines 41-57).

Regarding independent claim 26, Takami discloses a method for storing electronic money

using radio communication and a storing unit, comprising: determining whether a received radio

signal corresponds to a personal information update information; extracting a certain variable if

it is determined that received radio signal corresponds to personal information update

information; comparing the extracted variable with a certain variable transmitted during the

personal information update; and updating personal information when the currently transmitted

variable is greater than the previously transmitted variable (column 11, line 40 thru column 12

line 58 and Figures 13-15).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

8.   The text of those sections of Title 35, U.S. Code not included in this action can be found

in a prior Office action.

9.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness
        or nonobviousness.

10.   Claims 5-6, 8, 15, 23-25 and 27-33 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Takami et al. (hereinafter Takami) U.S. Patent 6,311,167 in view of Davis et

al. (hereinafter Davis) U.S. Patent 6,105,006.

Claim 5, Takami teaches the radio receiving block contains a key input unit for inputting

a certain key signal; a display unit for displaying a general information or a balance storing

information as a character or digit; a control means for decrypting an output signal of the high

frequency processing unit, transmitting to the display unit, transmitting to the computation block

if the information is the balance storing information or is a balance storing content check key

signal from the key input unit, receiving a balance storing content information and displaying the

same on the display unit (column 11, lines 41-58). Takami fails to teach a tone signal generator

for generating a call sound or an error sound during the balance storing operation by the control

means. Davis teaches a financial messaging system over radio frequency in which audio signals

are used to signal error messaging during the transaction (column 23, lines 27-38). Therefore it

would have been obvious to one of ordinary skill in the art at the time of the Applicant's

invention to modify the teachings of Takami to include for the audio signals taught by Davis

because they provide an efficient manner for communicating messages to users. There is

sufficient motivation to combine references since both Takami and Davis teach storing electronic

money with the use of radio frequency and comparing pertinent encrypted data to complete

transactions.

Claim 6, the control means is designed to check whether there is a certain pattern signal

in an output signal of the high frequency processing unit, determining whether the information

corresponds to a common radio information or a balance storing information, format the

information into a certain format corresponding to the computation logic block when there is a

certain pattern signal. Takami fails to teach a tone signal generator for generating a call sound or

an error sound during the balance storing operation by the control means. Davis teaches a

financial messaging system over radio frequency in which audio signals are used to signal error

messaging during the transaction (column 23, lines 27-38). Therefore it would have been

obvious to one of ordinary skill in the art at the time of the Applicant's invention to modify the

teachings of Takami to include for the audio signals taught by Davis because they provide an

efficient manner for communicating messages to users. There is sufficient motivation to

combine references since both Takami and Davis teach storing electronic money with the use of

radio frequency and comparing pertinent encrypted data to complete transactions.

Column 8, Takami teaches the computation logic block includes control means for

summing the balance of the memory block and the balance storing amount if certification

information extracted during the balance storing operation and the previously stored various

certification information is the same as the extracted certification information, for thereby

determining whether a subscriber is a proper subscriber, storing the balance storing data into the

memory block when a summed amount is below a certain amount. Takami fails to teach a tone

signal generator for generating a call sound or an error sound during the balance storing

operation by the control means. Davis teaches a financial messaging system over radio

frequency in which audio signals are used to signal error messaging during the transaction

(column 23, lines 27-38). Therefore it would have been obvious to one of ordinary skill in the

art at the time of the Applicant's invention to modify the teachings of Takami to include for the

audio signals taught by Davis because they provide an efficient manner for communicating

messages to users. There is sufficient motivation to combine references since both Takami and

Davis teach storing electronic money with the use of radio frequency and comparing pertinent

encrypted data to complete transactions.

Claim 15, Davis teaches that the control means is designed to disable the operation of the

memory block if an output signal from the radio signal receiving block is determined to be a

proper service stop signal, and stop the operation of the modulation and demodulation unit for

thereby stopping the service of the card (column 22, line 21 thru column 23 line, 15).

Regarding independent claims 23-25, Takami teaches comparing extracted information

from radio signals with previous account information and comparing whether the extracted

information is coincided with the previously stored certification information when determining

the card service stop or release information; and releasing a card service stop when the

certification information is coincided (column 22, line 21 thru column 23 line, 15).

Regarding independent claim 27, Takami teaches a method for storing electronic money

using radio communication and a storing unit comprising: determining whether received balance

storing information corresponds to a first balance storing information; determining whether the

received balance storing information is a proper signal by performing a certification of the first

balance storing information if it is determined that the received balance storing information

corresponds to the first balance storing information (column 11, line 59 thru column 12, line 59.

Takami fails to teach setting a temporary service stop state if it is determined that the received

balance storing information is a proper signal and waiting to receive second balance storing

information; performing a certification of the second balance storing information when the

second balance storing information is received and determining whether the second balance

storing information is a proper signal; and storing a request amount if it is determined the second

balance storing information is a proper signal and implementing an available state of the card. Davis teaches a system in which a temporary service stop state if it is determined that the received balance storing information is a proper signal and waiting to receive second balance storing information; performing a certification of the second balance storing information when the second balance storing information is received and determining whether the second balance storing information is a proper signal; and storing a request amount if it is determined the second balance storing information is a proper signal and implementing an available state of the card (column 21, line 51 thru column 23, line 15). It would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention that the teachings of Takami could be modified to include the teachings of Davis, since both teaches the ability to store electronic money with the use of radio frequencies and compare corresponding encrypted data to authenticate all financial transaction.

Claim 28, Davis teaches completing a balance storing operation when a proper balance storing cancellation information is received after the first balance storing information is received (column 22, line 39 thru column 23, line 15).

Claim 29, Davis teaches certification includes extracting the storing request amount from the first balance storing information, summing the thusly extracted amount and the balance, and determining whether the summed amount is greater than the storing limit amount; encrypting the value as a certain key value when the summed amount is the same as a is smaller than the string limit amount and determining whether the value equals the value extracted from the first balance

storing information; and encrypting the first balance storing information as a certain key value when the encrypted value is equal to the extracted value and changing to a decimal value and displaying the decimal value (column 14, lines 53-67).

Claim 30, Davis teaches encryption is performed using a certain key value provided from the first and second certification providers (column 14, lines 53-67).

Claim 31, Davis teaches certification includes formatting the data contained in the second balance storing information and encrypting using a certain key value of the certification provider; determining whether the encrypted value is equal to an encrypted value contained in the second balance storing information; and determining that the signal as a proper signal if the encrypted values are equal (column 23, line 27 thru column 14, line 9).

Claims 32 and 33, Davis teaches the certain key value is provided from a second certification provided, not from a radio communication service provider and is previously stored (column 14, lines 50-67).

Conclusion

11.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

> a) Goldfine et al., US Patent 5,343,529 Aug. 30, 1994. Transaction authentication using
>
> a centrally generated transaction identifier.
>
> b) Dorf, US Patent 6,000,608 Dec. 14, 1999. Multifunction Card System
>
> d) Seidman et al., US Patent 6,671,358 Dec. 30, 2003. Method and system for rewarding
>
> use of a universal identifier, and/or conducting a financial transaction.
>
> e) Levine et al., US RE38,255 Sep. 23, 2003. Method and apparatus for distributing
>
> currency.

12.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

13.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Stefano Karmis whose telephone number is (703) 305-8130. The

examiner can normally be reached on M-F: 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Vincent Millin can be reached on (703) 308-1065. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully Submitted
Stefano Karmis
May 14, 2004

HANI M. KAZIMI
PRIMARY EXAMINER